

2-15-17
Agenda 4.c.

Town of Sunset Beach
Pre-Dredge Analysis
Response to ERC January 4, 2017 Recommendations

The following is provided in response to the Environmental Resource Committee's (ERC) concerns & recommendations provided at the January 4, 2017 ERC meeting. The recommendations relate to the pre-dredge analysis sponsored by the Town of Sunset Beach. The following provides a summary of the concerns & recommendations as understood by Moffatt & Nichol (M&N) along with a response.

1. **ERC Recommendation / Concern:** The ERC recommended to postpone the dredging of Jinks Creek until a new primary nursery area study can be conducted.

(M&N) Response: This topic will be discussed at the next agency coordination meeting. The intent of this project has always been to work in partnership with the Town and resource agencies to provide a least impactful and most beneficial project to all. The resource agency comments were requested at the onset of the design process and this recommendation was not provided. The resource agencies manage the PNA areas and thus, their input was and should be the catalyst for this decision.

2. **ERC Recommendation / Concern:** Should an EIS (Environmental Impact Study) be performed for this project?

(M&N) Response: The need to conduct an EIS is determined by the resource agencies as a tool to satisfy NEPA (National Environmental Policy Act) requirements. To date, the agencies have not indicated a study extensive as an EIS would be necessary to complete this project. However, this topic will be discussed at the next agency coordination meeting to address the concerns of the ERC.

3. **ERC Recommendation / Concern:** Should a shellfish survey be performed for Jinks Creek?

M&N Response: Since the 1st agency coordination meeting, the resource agencies have indicated a shellfish survey will most likely be required for Jinks Creek. This topic will be discussed in further detail at the next agency coordination meeting.

4. **(A) ERC Recommendation / Concern:** Should the proposed navigation channel follow the natural channel flowline?

M&N Response: Yes, to the extent reasonable. The proposed work has been designed to follow the deep water contour along all of the dredge areas where possible and reasonable. Exceptions to this philosophy include the following:

- When the current flowline encroaches upon the channel banks such that a 3' (horizontal): 1' (vertical) side slope would impact the adjacent marsh.
- When the current flowline bends or serpentine within the channel banks and deviating from the path would create a more efficient channel.

M&N remains happy and available to review the channel path with the ERC to discuss where a more suitable path may be designed.

4. **(B) ERC Recommendation / Concern:** Has Jinks Creek ever been deeper than 6 feet below MLW (mean low water)?

M&N Response: The answer to this concern as a whole is unknown. However, the design takes care to follow and maintain the deep water path already established for Jinks Creek. Along the northern 3,800 ft of Jinks Creek the design depth is -5 MLW. From review of the February 2016 hydrographic surveys of Jinks Creek, the existing depth exceeds or meets the design depth along 5 of the 19 profiles sampled (Stations 10+00, 18+00, 26+00, 28+00, & 30+00). The existing depth exceeds -6 MLW along 1 profile (station 18+00). These measurements do not include the deepest depths of the 'S' Curve which do not fall on an established profile line. The deepest depth within the 'S' curve is estimated at -14 MLW.

The attached drawing shows the proposed alignment in Jinks Creek along with the February 2016 survey results.

5. **ERC Recommendation / Concern:** The ERC recommended not placing material for a marsh restoration project along Big Narrows channel or between Mary's & Turtle Creek.

M&N Response: The marsh restoration project is considered a conceptual plan to enhance the referenced sites. If the fill placement is not considered an enhancement by the Town, then M&N agrees, the material should not be placed.

As a note, conversations with DCM (NC Division of Coastal Management) and NMFS (National Marine Fisheries) suggest the concept of material placement within the referenced site between Mary's and Turtle Creek may generate substantial concerns. Therefore, M&N concurs that a different alternative for a marsh restoration or living shoreline project may be in the best interest of the Town.



SUNSET BEACH

TOWN OF SUNSET BEACH
PRE-DREDGE ANALYSIS
PROJECT OVERVIEW PLAN

LEGEND

- PROPOSED CHANNEL CENTERLINE
- PROPOSED CHANNEL, TOP AT MLW
- PROPOSED CHANNEL, SIDE WALL

ELEVATION LEGEND

- +2 ~ +4 MLW
- +3 ~ 0 MLW
- 0 ~ -2 MLW
- 2 ~ -4 MLW
- 4 ~ -6 MLW
- 6 ~ -8 MLW
- 8 ~ -10 MLW
- 10 ~ -12 MLW
- 12 ~ -14 MLW
- 14 ~ -16 MLW
- 16 ~ -18 MLW
- 18 ~ -20 MLW
- 20 ~ -22 MLW

NOTES

- DREDGE ACTIVITIES SHALL MAINTAIN A MINIMUM 10 FT CLEARANCE FROM ALL SUPPORT STRUCTURES.
- 2012 AERIAL PHOTO SHOWN PROVIDED BY NC DNRMAP.

GRAPHIC SCALE IN FEET

0 100 200 300

moftatt & nichol

Survey Response Form -

1. WHAT AREAS SHOULD BE DREDGED?

Check the map in the Information Sheet. Type yes by ONE or MORE choices.

- a) None of the areas ___24% for no dredging ... (76% for some dredging) ___
- b) Maintenance area: Mary's Creek and Turtle Creek ___54% for dredging ___
- c) Maintenance area: Finger Canals and Feeder Canal ___72% for dredging ___
- d) New area: South Jinks Creek ___19% for dredging ... (81% against dredging) ___
- e) New area: North Jinks Creek ___10% for dredging ... (90% against dredging) ___
- f) New area: Canal Drive Bay Area ___25% for dredging ... (75% against dredging)

2. WHO SHOULD PAY FOR THE DREDGING? Type "Yes" by ONE choice only.

- a) Property owners whose property adjoins the dredged channels ___43%___
(Approximately 350 adjoining properties if all proposed areas are dredged.)
- b) Property owners whose property adjoins the dredged channels, but with assessment proportionally allocated (by linear foot, by property value, by benefit to a particular property, etc.) ___51%___
- c) All property owners in the Town of Sunset Beach ___15%___

The total in part 2 is >100% because some people "ignored" the instruction to choose one response. That does not seem to change the conclusion that respondents do not favor all Town property owners sharing the cost.